12/159:008 – Introduction to Environmental Science
Fall 2012, TTH 2:00-3:15, AUD MH

Instructor: Dr. Frank Weirich
Office: Room 217 – Trowbridge Hall
Office Hours: Tuesday/Thursday 10:45 AM – 12:15 PM or by appointment
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Office: Room 35A – Trowbridge Hall
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Lecture TA & Lab Coordinator: Kat Rocheford
Office: Room 135A – Trowbridge Hall
Office Hours: Tuesday/Thursday 3:30 PM – 5:00 PM
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Important Note:
The lecture and reading schedule contained in this syllabus may change slightly according to our pace, the availability of guest lecturers, and other factors. Please note these changes as they are announced in class and/or posted on this course's ICON site.

Course Description, from ISIS:
This course presents a broad overview of Earth system processes and resources. Emphasis is given to the role of humans in natural systems; the effect of geologic, biologic, and climatic processes on human settlement and lifestyle; the short and long term effects of human activities on the environment; and the search for sustainability. Topics covered in lectures include ecosystems and their management, climate, soil and food supply, energy systems, surface water and groundwater, population, effects on human health, future availability of resources, waste management, and opportunities for conservation.

Learning Objectives:
Upon successful completion of this course you will be able to:
1. Describe the structure and function of significant environmental systems.
2. Use scientific reasoning to identify and understand environmental problems.
3. Critically evaluate arguments regarding environmental issues.
4. Understand the impact that your choices and actions have on the environment.

Required Textbook:
Available at the IMU Bookstore:
"Environment: The Science Behind the Stories", by Scott Brennan & Jay Withgott, **4th Edition**.
ISBN 0-321-71534-9.
Additional materials and supplemental readings will be assigned throughout the semester.

Assessment and Grading:
Your lecture grade will be based on exam scores and a project. Three term exams and a comprehensive final exam will be offered. *Your lowest term exam score will be dropped.* Thus, your grade will be based on two term exam scores, each with a value of 100 points, your final exam, with a value of 125 points, and a project, with a value of 50 points. If you miss one of your term exams, you may simply drop that score.

Shortly after every exam, your scores will be posted on this course's ICON site. For the exams, you will be responsible for all materials covered in lectures, assigned readings, films, and assignments. If you are taking the course that includes a lab, your course grade will include the 375 potential lecture points plus 125 potential lab points. Refer to the lab syllabus for the breakdown of lab points. Your final course grade will be based on your cumulative point total. You are guaranteed the letter grade associated with each percentage window below:

98-100% of available points = A+
93-98% of available points = A
90-93% of available points = A-
87-90% of available points = B+
83-87% of available points = B
80-83% of available points = B-
76-80% of available points = C+
72-76% of available points = C
67-72% of available points = C-
60-67% of available points = D
0-60% of available points = F

ICON:
All course information such as lecture and lab syllabi, lab schedule, TA office hours, e-mail addresses and student grades are located on this course's ICON site at http://icon.uiowa.edu/ Login using your Hawk ID and password. Be sure to check ICON regularly for class announcements as well.

Project:
Learning is a life-long process that extends beyond the classroom. As part of this course, you are required to participate in an environmental field project. This will involve a commitment of at least three hours of your time to a local environmental activity. You will be able to choose from a number of projects sponsored by local environmental organizations. ***Anyone needing accommodations to accomplish this project should contact Dr. Dorale during the second week of class.*** More information will be posted on this course's ICON site. You are responsible for signing up and arranging to participate. **You MUST submit a 250-word abstract, a photo of yourself doing the work, and a project sheet given to you by the coordinator at the work site (see information provided on this course's ICON site). This project is due before or at the end of lecture on Thursday, November 15.** This project is worth 50 points toward your final grade.

Important Note Regarding Exam Preparations:
Exams will be multiple choice. Questions will be based on lectures, readings, films, and assignments. Approximately 50% of the exam questions will come from lecture and lecture-related materials. Attendance at lectures is highly recommended.

Important Dates

August 20	First Lecture for ALL Students
Aug 27 – Aug 31	First Week of Lab
September 18	Term Exam 1
October 11	Term Exam 2
November 13	Term Exam 3
November 15	Project Report Due
December XX	Final Exam – TBA in mid-September

Course Schedule

The lecture schedule may change slightly according to our pace, the availability of guest lecturers, and other factors. Please note these changes as they are announced in class and/or posted on the course's ICON site.

Part 1

Week 1: 8/21 & 8/23
Ch. 1: Science and Sustainability: An Introduction to Environmental Science
Ch. 6: Environmental Ethics and Economics: Values and Choices

Week 2: 8/28 & 8/30
Ch. 6: Environmental Ethics and Economics: Values and Choices (continued)
Ch. 7: Environmental Policy: Decision Making and Problem Solving

Week 3: 9/4 & 9/6
Ch. 2: Earth's Physical Systems: Matter, Energy, and Geology
Ch. 5: Environmental Systems and Ecosystem Ecology AND
Ch. 15 (400-408); Ch. 16 (432-444); Ch. 17 (461-468)

Week 4: 9/11 & 9/13
Ch. 5: Environmental Systems and Ecosystem Ecology AND
Ch. 15 (400-408); Ch. 16 (432-444); Ch. 17 (461-468) (continued)
Ch. 3: Evolution, Biodiversity, and Population Ecology

Week 5: 9/18 & 9/20
Tuesday 9/18: ***Term Exam 1*** (100 points)
Ch. 4: Species Interactions and Community Ecology
Ch. 15: Freshwater Systems and Resources

Week 6: 9/25 & 9/27
Ch. 15: Freshwater Systems and Resources (continued)
Ch. 16: Marine and Coastal Systems and Resources

Week 7: 10/2 & 10/4
Ch. 17: Atmospheric Science and Air Pollution
Ch. 18: Global Climate Change

Week 8: 10/9 & 10/11
Ch. 18: Global Climate Change (continued)
Thursday, 10/11: ***Term Exam 2*** (100 points)

Part 2

Week 9
Tues. 10/16 Ch. 8: Human Population; Ch. 13: The Urban Environment
Thur. 10/18 Ch. 22: Managing Our Waste; Guest Lecture

Week 10
Tues. 10/23 Ch. 9: Soil & Agriculture; Ch. 10: Agriculture, Biotechnology, & the Future of Food
Thur. 10/25 Movie

Week 11:
Tues. 10/30 Ch. 14: Environmental Health and Technology; Movie
Thur. 11/1 Ch. 11: Biodiversity and Conservation Biology; Movie

Week 12:
Tues. 11/6 Ch. 11: Biodiversity and Conservation Biology continued
Thur. 11/8 Ch. 12: Forests, Forest Management, and Protected Areas

Week 13:
Tues. 11/13 ***Term Exam 3*** (100 points)
Thurs. 11/15: ***Project Report due***; Movie

Week 14
Thanksgiving Recess – No Classes

Week 15: 11/27 & 11/29
Tues 11/27 Ch. 19: Fossil Fuels, Ch. 23: Mining Ch. 20: Conventional Energy Alternatives
Thur 11/29 Movie or Guest Lecture

Week 16: 12/4 & 12/6
Tues. 12/4 Ch. 21: New Renewable Energy Alternatives; 24: Sustainable Solutions
Thurs. 12/6 Guest Lecture

December XX: Final Exam TBA in mid-September
The final exam is comprehensive. It will include all material covered in lecture, textbook, films, assignments, on-line readings and guest lecturers.

Department of Geoscience Syllabus Information:

Department Office: 121 Trowbridge Hall
Department Chair (DEO): Prof. M.K. Reagan
DEO Telephone: 319-335-1820

Telephone: 319-335-1818
DEO Office: 121C TH
DEO Email: geology-deo@uiowa.edu

Administrative Home
The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at http://clas.uiowa.edu/students/handbook.

Electronic Communication
University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences. (*Operations Manua*l, III.15.2. k.11.)

Accommodations for Disabilities
A student seeking academic accommodations should first register with Student Disability Services and then meet privately with the course instructor to make particular arrangements. See www.uiowa.edu/~sds/ for more information.

Academic Honesty
All CLAS students have, in essence, agreed to the College's Code of Academic Honesty: "I pledge to do my own academic work and to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty." Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (CLAS Academic Policies Handbook).

CLAS Final Examination Policies
The final examination schedule for each class is announced around the fifth week of the semester by the Registrar. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the dates and times of each final exam, the complete schedule will be published on the Registrar's web site.

Making a Suggestion or a Complaint
Students with a suggestion or complaint should first visit the instructor, then the course supervisor, and then the departmental DEO. Complaints must be made within six months of the incident (CLAS Student Academic Handbook.)

Understanding Sexual Harassment
Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Comprehensive Guide on Sexual Harassment for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather
In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Public Safety web site.

Rights and responsibilities in the classroom
The College's statement on student rights and responsibilities can be found at:
http://www.clas.uiowa.edu/students/handbook/x/.